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ABSTRACT

A study was conducted (1) to discover whether using standardized headings on warranties would increase or decrease people's speed and accuracy in understanding the terms of warranties and (2) to determine what effect headings would have on people's attitudes toward warranties. Subjects were 48 adult consumers who read groups of four warranties for television sets and responded to questionnaires about the warranties. The warranties were counterbalanced so that different subjects received warranties in different orders. Each set of warranties had two warranties with headings and two without headings. All the warranties were written in clear and simple language. There were no statistically significant differences in either the number of correct responses or in the time taken to answer the questions. That is, subjects read warranties without standardized headings just as well as they read identical versions with standardized headings added. However, approximately 90% of the subjects showed strong preferences for standardized headings on warranties. (RL)

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DOCUMENT DESIGN PROJECT

Technical Report No. 6

A Study of Standardized Headings for Warranties

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Janice C. Redish

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ABOUT THE DOCUMENT DESIGN PROJECT

In September 1978, the American Institutes for Research (AIR) began the Document Design Project to foster clear and simple writing and design of public documents. The purpose of the Document Design Project (DDP) is to help make forms, regulations, brochures, and other written materials easier for people to read, to understand, and to use.

Carnegie-Mellon University and Siegel & Gale, Inc., a private firm that specializes in language simplification and language training, work with AIR on this project. Funding for the project comes from the National Institute of Education.

The Project's goal is to increase the knowledge and skills of people who produce public documents. To accomplish this goal, the Document Design Project is working on three tasks:

Task 1: To conduct theoretical and applied research studies on language comprehension, on the ways in which skilled and unskilled writers work, on problems associated with different document features.

Task 2: To work directly with government and private agencies as they produce materials for public use.

Task 3: To develop courses on writing and design for graduate students and undergraduates.

If you have questions or comments on this report or on other work of the Document Design Project, contact Dr. Janice C. Redish, Director, The Document Design Project, AIR, (202) 342-5071.

A STUDY OF STANDARDIZED HEADINGS FOR WARRANTIES

In this study we investigated how a standardized format with headings and the logical organization that headings highlight affects people's ability to understand and to find information in product warranties. The study is based on the assumption that lack of headings for the material in a document may create at least as much of a problem for the reader as the actual language and its complexities and that conversely, for the writer, organizational skills may be as important as skill in sentence construction.

Introduction

Purpose

The study of headings in warranties helps to fulfill the Document Design Project's goal of providing directly relevant, practical assistance to government agencies in their attempts to produce clearer and more usable documents. Warranties are particularly important to study because they reach a large consumer population, and have the potential for substantial monetary hurt.

The specific purpose of this study was to discover whether using standardized headings on warranties would increase or decrease people's speed and accuracy in understanding the terms of warranties, and to determine what effect headings would have on their attitudes toward warranties. The results of this study are directly applicable to other groups who need to translate technical information for a lay audience (as in patient package inserts, notices, labels, etc.).

Background

Under the authority of the Magnuson-Moss Warranty Act of 1975, the Federal Trade Commission (FTC) is considering requiring a particular standardized format (with standardized headings) for product warranties. As it now stands, warranties may be in almost any format, with or without any kind of headings. These random formats, with random types and amounts of information, may not be in the consumer's best interests; the consumer may be less likely to read, understand, and use warranties as they now exist than would be the case if the format were standardized, with clear, understandable headings. The present study tested that hypothesis.

People are often unmotivated to read or save warranties. If the problem is that people believe that they will not get the service the warranty promises no matter what the warranty says, then a clearly written, well-organized warranty probably will not help much. But if people do not read warranties because they expect that they will not understand them, then requiring clearly written, well-organized warranties with standard headings may allow more people to read and use their warranty rights. We therefore included questions about whether people read warranties now, save warranties, have taken advantage of warranty service and whether they would be more likely to read, save, and use warranties in the new form we were testing than they did before.

The research background for this study comes from the field of instructional research. Studies (for example, Gagné, 1970; Gagné and Briggs, 1974; Hershberger, 1969) have shown that mechanisms to help the reader organize information also improve comprehension and speed in retrieval of information. However, those studies were done with instructional material in learning settings. They did not address the question of whether having standardized organization and headings improves understanding of different content material over repeated

trials. Furthermore, the subjects of previous studies have been university students, who may not be representative of the general population. We want to know if the results of such studies are valid for a general population.

Research Questions

This study addressed the following research questions:

1. What effect do standard headings for warranties have on subjects' speed and accuracy of understanding?

2. Is there any difference in subjects' attitudes toward warranties with and without headings?

Method

Subjects

Subjects were 48 adult consumers who volunteered to participate in the study. We initially sought participants in a shopping mall in Prince George's County, Maryland, on two consecutive Saturdays in the spring of 1979. Our intent was to get a reasonable cross-section of shoppers with different ages, educations, and incomes. Thirty people volunteered, but they were assigned unevenly to the two treatment groups. To equalize the size of the groups, we advertised for additional participants. Eighteen subjects responded and were paid $5.00 each for taking part in the study at the AIR offices.

In total, there were 26 males and 12 females, ranging in age from 17 to 70. The mean age of the males was 34.6 and 28.4 for the females. Eighty-five percent had at least some college education and about eighty percent earned more than $15,000 per year. The participants in general were skewed toward the high end of the range for both education and income.

Materials

Materials were eight warranties for television sets, created for the experiment. These eight warranties were all written in clear and simple language, or "plain English." There were four basic plain English warranties (PE 1, PE 2, PE 3, PE 4), each with different warranty conditions. These had no particular organization, and no headings beyond the one at the top of the page. Each of these four unheaded warranties had a counterpart (PE 1_h, PE 2_h, PE 3_h, PE 4_h). These had the same content and the same sentences, but with six appropriately placed headings dividing up the text. The headings were:

- Who Is Covered?
- What Is Covered?
- What Is NOT Covered?
- What (Company Name) Will Do and For How Long.
- What You Must Do.
- How to Get Warranty Service.

A set of twelve questions that asked about the provisions and coverage of the warranties was prepared on twelve 3" x 5" cards, one question per card. The same questions were used for all warranties. (See Appendix A.)

We developed two short questionnaires which all subjects filled out when they completed the test. One questionnaire consisted of ten items that asked about the subject's real-world use of warranties and his/her preference for any of the warranties in the study. The second questionnaire consisted of seven items asking for demographic data. These questionnaires are attached as Appendix B.

The other materials used were an answer sheet for the subjects to record their answers, a time data sheet for the experimenter to note how long it took the subject to answer each question, and a stopwatch.

Procedure

Each volunteer was taken individually to the test area and assigned randomly to one of two treatment groups, Group A or Group B. Groups A and B received the warranties shown in Table 1.

Table 1

Warranties Assigned to Treatment Groups

Group	
A	B
PE 1	PE 1_h
PE 2_h	PE 2
PE 3	PE 3_h
PE 4_h	PE 4

The warranties were distributed so that no group received an unheaded warranty and its counterpart with headings. The warranties were counterbalanced so that different subjects received the warranties in different orders.

After each subject was seated at a table, the experimenter explained the task as follows:

> We're trying to find out some things about warranties. What we'd like you to do is read four warranties and answer 12 questions about each of them. We're not trying to test you, so don't be nervous, and don't worry about getting anything wrong.
>
> I'm first going to give you a warranty to read, and time you. Don't rush through it; just let me know when you are finished reading it. O.K. Turn it over.

The experimenter timed the subjects' reading of the warranty with a stopwatch and noted the time on a time data sheet.

Next, the experimenter gave the subject a deck of twelve 3" x 5" cards in random order, face down, and an answer sheet, and said:

> Now I want you to answer 12 questions about the warranty. Turn over each question card when I tell you to and write the number of each question and your answer on this sheet. The questions aren't in normal order, so be sure you put down the number that is on the question card. I'll time your answers, but please don't rush. Try and find the answer to each question in the warranty. Your answers should be 'Yes', and 'No', or a short answer such as '$50' or 'three months'. If the warranty does not have the information you need to answer a question, don't try to guess. Just write 'doesn't say'. If a question has more than one part, make sure you answer all parts.
>
> O.K. Turn over the first question card and read the question number.

The experimenter started the stopwatch and noted the question number on the subject's time sheet. When the subject finished writing, the experimenter recorded the amount of time it took to answer the question (to the nearest second). The subject proceeded to the next question, and so on. When all twelve questions were completed, the 3" x 5" cards were shuffled in preparation for testing the next warranty. The same procedure was followed for the remaining three warranties. When the subject had completed all four warranties, he or she filled out the two questionnaires.

The entire procedure took between 30 minutes and an hour, depending upon the subject's speed in answering the substantive questions.

Dependent Measures

We were interested in the length of time required to answer questions about warranties, the accuracy of the answers, and preferences for specific warranties.

The time measure was the amount of time each subject

took to read and answer each question on each warranty.

The accuracy measure was the number of questions answered correctly about each warranty.

The preference measure was each subject's own expressed feelings about the specific warranties he or she liked best.

Results and Discussion

We analyzed three types of data: speed of response, accuracy of response, and people's preferences.

Speed and Accuracy Data

We performed two main analyses of the performance data. For one main analysis we compared the number of correct responses of subjects, i.e., Groups A and B, who received warranties with standardized headings against those who received warranties without headings. For the second main analysis we compared the amount of time it took these same subjects to answer the questions.

In the two main analyses, the data were tested by separate one-way analyses of variance. Comparisons were made on four pairs of warranties (PE 1 v. PE 1_h; PE 2 v. PE 2_h; PE 3 v. PE 3_h; PE 4 v. PE 4_h). Each warranty pair that was compared had identical content and differed only in that one had standardized headings.

The results of the main analyses revealed no statistically significant differences in either the number of correct responses or in the time taken to answer the questions. That is, subjects who read plain English warranties without standardized headings performed just as well statistically as those who read plain English versions with standardized headings. These results were somewhat surprising since it is reasonable

to expect that standardized headings, by focusing attention to specific content areas, would at least enhance the speed of locating information.

The lack of significant differences may be attributable to the nature of the task, the length of the warranties, or the characteristics of the participants. We may have made the task too simple by writing all the warranties in plain English. It may have been that these clearly written warranties were so easy to understand that using headings added little to their overall comprehensibility.

In an attempt to parallel the conditions under which warranties are used in the real world, we permitted subjects to refer back to the warranties while answering questions. This may have made the experimental task too simple or may have washed out any differences in performance due to standardized headings.

The warranties were short documents. They were only about one-half page long and consisted of a few brief paragraphs. The subjects might have been able to easily grasp and retain the fairly small segments of information and retrieve them from memory regardless of the warranty they were working with.

Finally, the subjects who volunteered to participate in the study generally were well educated and, presumably, high in verbal skills. These subjects probably would have performed well on tests of most kinds of written documents. There clearly was a selection bias that we could not control. We were seeking volunteers in a public shopping mall. Although the mall is located in an area with a broad range of economic levels, perhaps people willing to participate in a study of this type tend to be the more educated and verbally skilled.

It was probably the case that these factors combined to confound any effects of standardized headings. The independent variable being manipulated (use of headings) simply may not

have been powerful enough to override the confounding influence present in the experimental situation. There were two reasons for this. First, because we were concerned with a real-world document, we wanted our design to have high external validity. We tried to mirror some aspects of reality by using real consumers, an actual shopping area, and a meaningful document-user task. Second, we faced a practical need to restrict the overall time requirements if we were to successfully recruit volunteer consumers as subjects. We created relatively short warranties, as one way to shorten time and decrease the burden on subjects.

Preference Data

The other major part of this study was the questionnaire dealing with the subjects' normal use of warranties and their preferences for the warranty formats presented. In the questionnaire which covered this area there were, in particular, two questions, the first and the last, which were designed to elicit subjects' subjective evaluations of the standardized headings in the new warranties.

For the first question: "Which warranty was easiest to read and understand?" 43 out of 48 subjects (90 percent) in Groups A and B indicated that the warranties with standardized headings were easiest to read and understand. In answer to the last question, 90 percent of the subjects in both groups indicated that they would be more motivated to use and pay attention to warranties if they had standardized headings like the ones in the experiment. These findings demonstrate a strong preference for standardized headings on warranties.*

The preference data are very interesting, especially in light of the fact that the study brought out no significant performance differences. The participants in this study

*The responses to these and the other items of the questionnaire are summarized and presented in Appendix C.

were adult consumers, somewhat better educated and perhaps better informed than average. Their strong preference for warranties with informative headings -- in spite of the fact that all the warranties *were in clear English* -- is an important finding.

Reading warranties is largely a matter of motivation. If improving the format of warranties, by putting in standard, informative headings as we did in this study, makes people think the warranty is easier to read and piques their interest, then more people are likely to read warranties. This could mean that more people would know, and take advantage of, their warranty rights. As the subjects in this study indicated, they felt they would be more likely to read warranties if they had headings like the ones used in the study. Obviously, the only way to find out whether, in fact, standard headings would increase the likelihood that people will read and use warranties, is to somehow measure their actual behavior with warranties in real-life situations; but there is no easy way of doing that. A performance experiment, measuring time or error rate, such as the one we attempted, would be unlikely to uncover any significant differences.

It may be, then, that for this type of document, the best and most useful kind of information we can get is preference data. And based on the strong preference for warranties with the standard headings, we can recommend that warranties and other public documents have meaningful headings as signposts to the content of the documents.

References

Gagné, R. M., *The conditions of learning* (2nd ed.). New York: Holt, Rinehart & Winston, 1970.

Gagné, R. M., & Briggs, L. *Principles of instructional design.* New York: Holt, Rinehart & Winston, 1974.

Hershberger, W. A. Self-evaluational reading and typographical cueing; techniques for programming self-instructional reading materials. *Journal of Educational Psychology*, 1964, *55*, 288-296.

APPENDIX A

Sample Warranties and Questions

MECO Black and White Television

LIMITED WARRANTY

Who Is Covered?

This warranty covers the original buyer of this MECO TV set.

What Is Covered?

This warranty covers your new MECO TV set for any defects in materials or workmanship.

What Is NOT Covered?

This warranty does not cover:

- the antenna
- the power cord
- any accessories used with the TV
- a broken cabinet
- parts damaged by misuse.

This warranty will not apply if the TV set was dropped, abused, or damaged when altered or repaired by anyone except an authorized MECO service center.

What MECO Will Do and For How Long

For the first 90 days, MECO will supply parts and labor free to repair or replace any defects in materials or workmanship.

After 90 days and up to 1 year, MECO will supply the part free but you will pay a $9.00 service charge. The $9.00 service charge must be paid when you bring or send in the TV.

After the warranty period (one year), you will pay for labor and parts.

At all times, you are responsible for bringing or sending your MECO TV in for repairs.

What You Must Do

The set must have been installed and used normally during the warranty period.

If you bring or send the TV in to an authorized MECO service center, it must be in its original packing case.

You must present an original sales receipt, showing the original date of purchase.

How To Get Warranty Service

Look in the Yellow Pages of your telephone book for the authorized MECO service center nearest you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

The warranty that this product will work normally is limited to one year. No one has the right to change or add to this warranty.

ELCO Black and White Television

LIMITED WARRANTY

This warranty covers your new TV set for any defects in materials or workmanship. ELCO agrees to fix any defect, or to provide new parts for any defective ELCO black and white TV set for a period of one year after the date of sale to the original buyer. The set must have been installed and used normally during that time.

ELCO will supply parts and labor free for the first 90 days after the TV set was originally bought. After that, and up to the end of the warranty period, ELCO will charge a service charge of $9.00. However, the warranty will not apply if the TV set was dropped, abused or damaged when altered or repaired by anyone except an authorized ELCO Service Center. Also, you must pay in advance for all transportation costs to and from the Authorized ELCO Service Center. Look in the Yellow Pages of your telephone book for the authorized ELCO service center nearest you. This warranty does not cover the antenna, power cord, and any accessories that may be used with the TV set. It also does not cover a broken cabinet, or parts that have been damaged by misuse.

When you bring or send your ELCO TV set in for repairs, it must be in its original packing case. You must also present an original sales receipt, showing the original date of purchase. After the first 90 days, you must pay the $9.00 service charge at the time you bring in or send in the TV set.

If you bring or send the TV set in without the sales slip, or after the warranty period is over, you will have to pay for everything.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

The warranty that the product will work normally is limited to one year. No one has the right to change or add to this warranty.

The Twelve Questions

1. If you move to Colorado with the TV set, will it still be covered?

2. If you bought the TV set in Montreal, Canada, is it covered by the warranty?

3. During the time that you get free service, will the repair person come to your house for free?

4. Nine months after you buy the TV set, the sound goes out.

   a. What do you have to pay for?

   b. What will you get for free?

5. If the tuner stops working because you accidently drop the TV set, are the repairs covered under the warranty?

6. Let's say you buy this TV set second-hand, when it is six months old. The day after you get it home and turn it on, the transistors in the set go bad.

   Will the company fix the TV for free?

7. Let's say you buy the TV set new. After seven months, the picture tube suddenly blows out.

   a. Who pays for the new picture tube?

   b. Who pays for labor to replace the tube?

   c. Who pays to get the TV to and from the shop?

8. Suppose that when the picture tube blew out, it set fire to your living room.

   Who pays for damage to your living room?

9. When you get the new TV set home, you find that the signal is too weak to pick up your favorite channel in Arlington, Virginia.

   Will the company take care of this problem?

10. Your TV set is one month old. The antenna attached to the set breaks.

    a. Will the company give you a free new antenna?

    b. If they will, for how long is the new antenna covered under the warranty?

11. How would you find the company's shop if you want to take your TV there for servicing under the warranty?

12. Who gets to keep the old parts when the TV set is repaired?

APPENDIX B

Questionnaire and Demographic Data Form

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WARRANTY STUDY QUESTIONNAIRE

Subject No. __ __

1. Which warranty was easiest to read and understand? _____

   Why? _____

   _____

2. Do you normally read warranties? (check one)

   ☐ Never ☐ Seldom ☐ Sometimes ☐ Often ☐ Always

3. Do you normally save warranties? (check one)

   ☐ Never ☐ Seldom ☐ Sometimes ☐ Often ☐ Always

4. How much do you care about what the warranty says when you are buying a TV set?

   ☐ Not at all ☐ A little ☐ A lot

5. Have you taken advantage of warranty service for a TV set?

   ☐ Never ☐ Once or twice ☐ Several times

6. Have you ever bought a TV set? ☐ Yes ☐ No

7. The last time you bought a TV set, did you read the warranty before you bought it?

   ☐ Yes ☐ No ☐ Don't remember

   after you bought it? ☐ Yes ☐ No ☐ Don't remember

8. Did you save that warranty? ☐ Yes ☐ No

9. Did you use your warranty rights for that TV set?

   ☐ No need to

   ☐ Needed repairs, didn't use warranty

   ☐ Tried to use warranty, didn't get what I thought I was entitled to

   ☐ Used warranty, got service as I had thought

10. Do you think you would pay more attention to warranties if all warranties had separate sections with headings (like the ones you saw today)?

    ☐ Yes ☐ No

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DEMOGRAPHIC DATA FORM

Subject No. _____

● Please help us by filling out this form.

This information is for statistical purposes only: that means we are not asking for your name. No one will be able to trace your identity from this form. Information from this page will be combined with information from everyone else who participates in this survey to see if, on the average, people of, for example, different ages or different occupations answer the questions we have asked differently.

1. Sex: ☐ Male ☐ Female

2. Age: _____

3. Education: Last grade you finished _____
   or
   Most advanced college/graduate degree you hold _____

4. What field were you trained in? _____

5. What is your occupation now? _____

   If unemployed now, what was your most recent occupation? _____

6. Yearly family income (please check only one line):
   - ☐ less than $5,000
   - ☐ $5,000–$10,000
   - ☐ $11,000–$15,000
   - ☐ $16,000–$20,000
   - ☐ $21,000–$25,000
   - ☐ over $25,000

7. What language do you read best?
   - ☐ English
   - ☐ Spanish
   - ☐ Other (what? _____)

APPENDIX C

Results of Questionnaire

Appendix C.: Results of Questionnaires

1. Which warranty was easiest to read and understand?

	Warranties with headings		Warranties without headings		None
	either	both	either	both	
Group A	19	3	1	0	1
Group B	14	6	2	0	2
	33	9	3	0	3
Total:	42		3		3

2. Do you normally read warranties?

	Never	Seldom	Sometimes	Often	Always
Group A	1	6	6	9	2
Group B	1	5	8	5	5
Total:	2	11	14	14	7

3. Do you normally save warranties?

	Never	Seldom	Sometimes	Often	Always
Group A	2	1	4	4	13
Group B	1	2	6	1	14
Total:	3	3	10	5	27

4. How much do you care about what the warranty says when you are buying a T.V. set?

	Not at all	A little	A lot
Group A	1	6	17
Group B	1	11	12
Total:	2	17	29

5. Have you taken advantage of warranty service for a TV set?

	Never	Once or twice	Several times
Group A	19	2	3
Group B	14	5	4
Total:	33	7	7

(1 blank)

6. Have you ever bought a TV set?

	Yes	No
Group A	17	7
Group B	19	5
Total:	36	12

7a. The last time you bought a TV set, did you read the warranty before you bought it?

	Yes	No	Don't remember	Blank
Group A	6	8	2	8
Group B	6	7	6	5
Total:	12	15	8	13

7b. After you bought it?

	Yes	No	Don't remember	Blank
Group A	11	3	1	9
Group B	12	2	3	7
Total:	23	5	4	16

8. Did you save the warranty?

	Yes	No	Blank
Group A	13	3	8
Group B	15	3	6
Total:	28	6	14

9. Did you use your warranty rights for that TV set?

	No need	Needed repairs didn't use war.	Tried to didn't get	Used warranty got service
Group A	11	1	0	4
Group B	12	1	0	4
Total:	23	2	0	8

10. Do you think you would pay more attention to warranties if all warranties had separate sections with headings (like the ones you saw today)?

	Yes	No
Group A	23	1
Group B	20	4
Total:	43	5